

WHAT IS CLAIMED IS:

1. A computer-aided design (CAD) system having a modeling mechanism that uses both two-dimensional  
5 and three-dimensional views of a solid object in an integrated manner, comprising:

two-dimensional drawing generating means for generating a two-dimensional drawing that represents a three-dimensional model being defined as a collection of  
10 three-dimensional geometric features;

two-dimensional drawing display means for displaying the generated two-dimensional drawing on a monitor screen;

graphic element selection means for selecting a  
15 graphic element contained in the two-dimensional drawing being displayed on the monitor screen; and

three-dimensional feature selection means for identifying one of the three-dimensional geometric features that corresponds to the graphic element selected  
20 by the graphic element selection means, and setting the identified geometric feature to a selected state for further manipulation.

2. The CAD system according to claim 1,  
25 wherein the two-dimensional drawing generated by the two-dimensional drawing generating means is a set of orthographic projection views of the three-dimensional

model.

3. The CAD system according to claim 2,  
wherein:

5 the two-dimensional drawing display means displays  
a projection view of each geometric feature on the monitor  
screen, according to a line of sight defined for the two-  
dimensional drawing; and

the graphic element selection means selects a  
10 graphic element in the projection views of the geometric  
features provided by the two-dimensional drawing display  
means.

4. The three-dimensional CAD system according  
15 to claim 1, wherein:

the two-dimensional drawing generating means  
produces a two-dimensional view of each of the three-  
dimensional geometric features constituting the three-  
dimensional model, as well as maintains data about  
20 associations between graphic elements contained in the  
produced two-dimensional views and the three-dimensional  
geometric features; and

the three-dimensional feature selection means  
identifies one of the three-dimensional geometric features  
25 that corresponds to the graphic element selected by the  
graphic element selection means, based on the data  
maintained by the two-dimensional drawing generating means.

5. The three-dimensional CAD system according to claim 1, wherein the graphic element selection means makes the identified geometric feature appear with emphasis, in contrast to other features shown in a three-dimensional view on the monitor screen.

6. A computer-readable medium storing a CAD program which provides a modeling mechanism using both two-dimensional and three-dimensional views of a solid object in an integrated manner, the CAD program causing a computer to function as:

two-dimensional drawing generating means for generating a two-dimensional drawing that represents a three-dimensional model being defined as a collection of three-dimensional geometric features;

two-dimensional drawing display means for displaying the generated two-dimensional drawing on a monitor screen;

graphic element selection means for selecting a graphic element contained in the two-dimensional drawing being displayed on the monitor screen; and

three-dimensional feature selection means for identifying one of the three-dimensional geometric features that corresponds to the graphic element selected by the graphic element selection means, and setting the identified geometric feature to a selected state for

further manipulation.

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